

Beaver kits go with the flow, but are safe in the lodge

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1. Introduction

Climate change is affecting the hydrological cycle and alters flow patterns including the **timing and frequency of floods**. Similar changes can occur when rivers are regulated for **hydropower** use which can negatively impact reproduction. Little is known about the effect flooding has on the offspring of the keystone species beaver (*Castor* spp.)

2. Methods

- Demographic data of from 25 Eurasian beaver (*C. fiber*) families
- From years 2000 - 2021
- Three rivers differently affected by hydropower
- Investigating how water levels affect reproduction and survival of beaver kits

3. Results

Increased water level during summer, when the kits emerge from the lodge, had a **negative effect on predicted offspring survival**. Although the water levels were higher during spring and autumn, this did not negatively affect beaver kit survival. Our results indicate that **flood peak timing** may be more important than flood peak magnitude on successful reproduction and offspring survival.

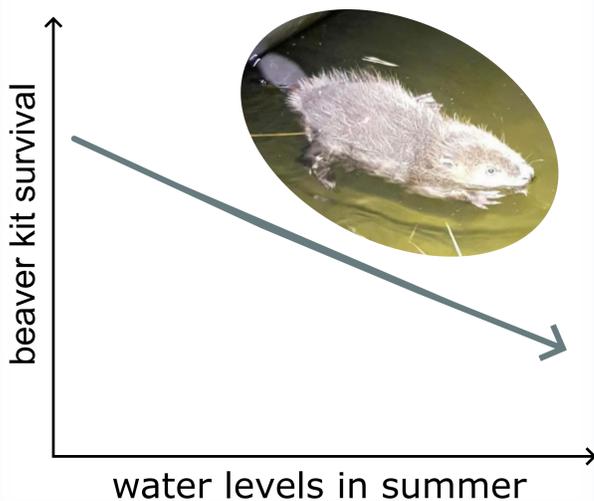
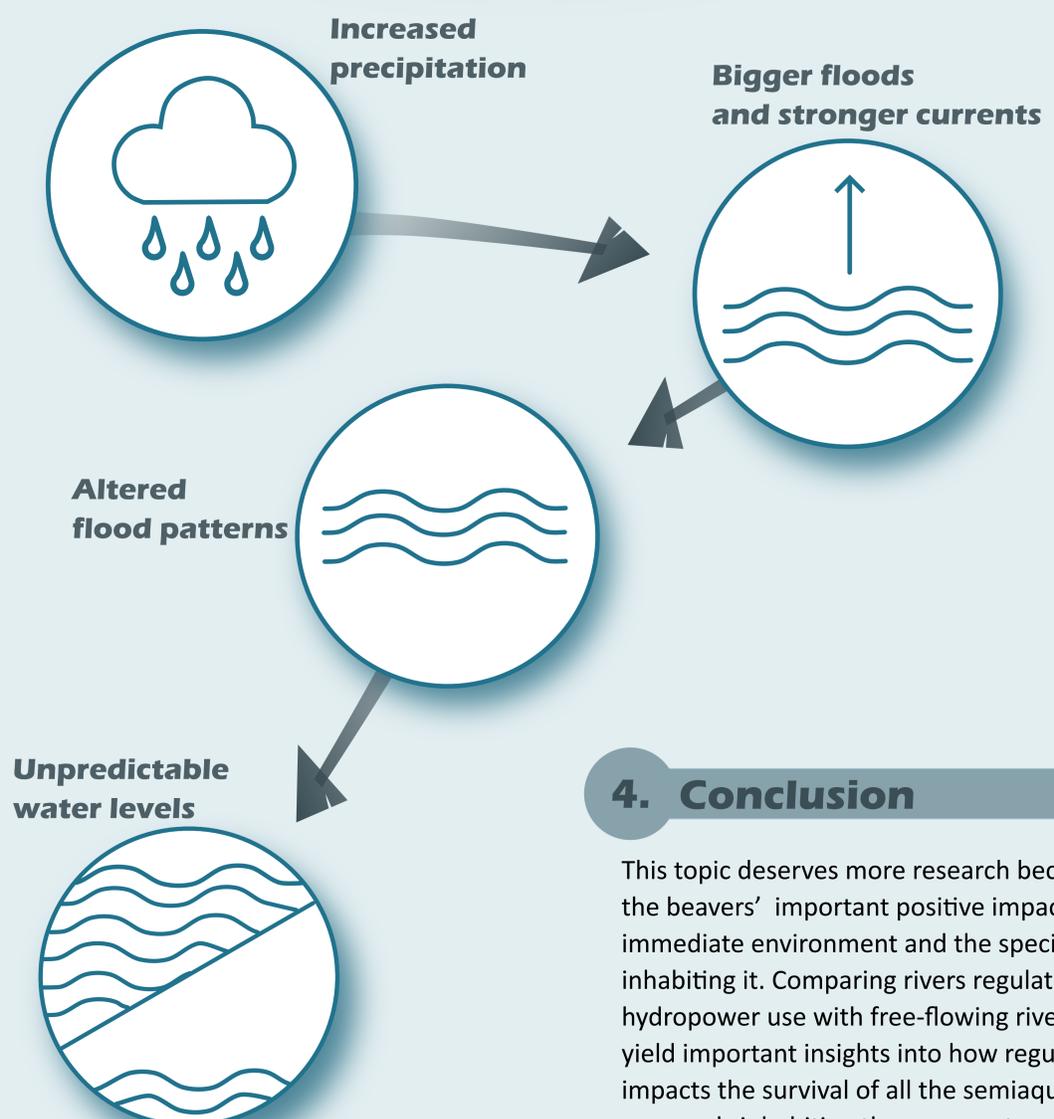


Photo by: Frank Rosell



4. Conclusion

This topic deserves more research because of the beavers' important positive impact on its immediate environment and the species inhabiting it. Comparing rivers regulated for hydropower use with free-flowing rivers could yield important insights into how regulation impacts the survival of all the semiaquatic mammals inhabiting these ecosystems.